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GEOGRAPHIC SCHOOL BULLETINS

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Clifton Adams

NIGHT SHADOWS TURN HAITI'S WHITE HOUSE BLACK AND WHITE

The National Palace, home of Haiti's president, is part residence and part office building, with government offices sharing the structure. It stands in the old section of Port-au-Prince, facing Place L'Ouverture, the park named for the popular hero, Toussaint L'Ouverture, Haiti's first native ruler. Among L'Ouverture's successors was Henri Christophe, who declared himself king in 1811 and built the elaborate palace of Sans Souci and the massive hilltop Citadel, still landmarks for present-day visitors. Finally, after 11 years under Faustin Soulouque, who had himself crowned Emperor Faustin I, Haiti settled down to a succession of native presidents as the only Negro republic in the Western Hemisphere (Bulletin No. 2).

HOW TEACHERS MAY OBTAIN THE BULLETINS

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General Headquarters, Washington, D. C.

Warring Russia Adds to Uzbek Power Resources

SOVIET Russia, in the midst of its all-out war, is finding strength also to build a new hydroelectric plant which is to be its third largest.

In the Uzbek Soviet Socialist Republic, one of the U.S.S.R.'s member republics in Central Asia, a dam is to be constructed across one of the rushing glacier-fed rivers that pour into the Aral Sea basin from northwest spurs of the Tien Shan or Celestial Mountains. Like other such projects already completed in the area, the dam will provide water for irrigation as well as for power.

Practically all Uzbek agriculture is artificially watered. Chief crop is cotton, the yield amounting to two-thirds of the U.S.S.R.'s total production. Special efforts have been made to improve the cotton crop of Uzbekistan, in order to make the U.S.S.R. independent of imports of this important textile fiber.

An Oriental "Dixie Land" of Moslems

Originally introduced from Africa, Uzbek cotton has been crossed with plants from the U. S. in recent experiments at Tashkent. Leisurely American cotton ordinarily cannot mature in the short summer of Central Asia. The mechanical cotton picker invented by Americans has also been adapted for use in Uzbek fields.

The Uzbek S.S. Republic, exceeding Italy in size, clings to the northern slopes of the Tien Shan, the "backbone of Asia," and reaches across the desert steppe of the Kyzyl Kum to encompass the southern half of the Aral Sea (Aralskoe More). Its winding boundaries set it off from the Kazakh, Turkmen, Tadzhik, and Kirgiz S.S. Republics—much of the former Russian Turkestan.

The northern half of Uzbekistan is a self-governing subdivision known as the Kara-Kalpak Autonomous S. S. Republic.

Most of Uzbekistan's six million people live in four "oases." There, however, an oasis, unlike the African palm-bordered water-hole, is an extensive valley, where for centuries the rivers have not reached their normal outlets—in this region, the Aral Sea—because they are diverted into irrigation canals.

Uzbekistan's four valley oases support the fabled cities of Urgench, Tashkent, Samarkand, Bukhara (illustration, next page), and Fergana. They were of far greater prominence in the past before the mysterious drying-up of Central Asia reduced numerous metropolises to desert-swept ghost cities.

Legendary "Golden Road to Samarkand" Now Leads to Industrial Cities

Samarkand was an ancient irrigation-fed center when Alexander the Great captured it 23 centuries ago. It was a prize of Genghis Khan. As the capital of Tamerlane, it reached the peak of its power and splendor in the 15th century. Many landmarks of that fabulous period endure, including the high-domed tomb of Tamerlane. Now the city counts a mere 135,000 inhabitants.

Both Samarkand, and Bukhara farther west, have known great international trade, as they stood at the juncture of important camel caravan routes that served Asia before ships took the long-distance commerce. The "Golden Road to Samarkand," across sun-gilded desert sands, has become legendary.

Tashkent farther east, some 2,000 miles from Moscow, is now the capital of the Uzbek S.S. Republic. With a population of about 600,000, it is the largest city of Asiatic Russia, and the eighth largest of the U.S.S.R.

The opening of factories, since the founding of the Republic in 1920, has

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HAITI'S HALF OF HISPANIOLA IS MAINLY A PAIR OF PENINSULAS

Haiti's share of the island which owes its name, Hispaniola, to Columbus is about one-third of the area and two-thirds of the people.

At times in the past her share was larger. Toussaint L'Ouverture, the Negro slave general who took over the government of Haiti during the French Revolution, extended Haitian rule to the entire island before a French army sent over by Napoleon captured him by treachery.

The country is well known to many from the United States since U. S. troops were garrisoned there from July 28, 1915, until August 21, 1934.

Haiti's outstanding geographic feature is the broad Gulf of Gonaïves which divides the country in effect into two peninsulas. The capital city and chief port, Port-au-Prince, stands at the head of the gulf, where its harbor is shielded from the effect of Caribbean storms by Gonâve Island. Inland from Port-au-Prince extends the fertile Valley of Cul-de-Sac, rich sugar cane country.

The southern peninsula, stretching westward to the port of Tiburon, is a mountain massif that rises to 7,872 feet in Macaya Peak. One of the nation's main highways traverses the fruit-and-coffee country between Jérémie and Port-au-Prince. The 180-year-old port of Jérémie gave France the ancestor of the two famous Dumas novelists. Petit Goave is a local coffee center. Aux Cayes on the south coast, a coffee and timber port, ranks third in size among Haiti's towns, rivaling Cap Haitien's 15,000 inhabitants.

The northern peninsula is dominated by the country's second-largest city, Cap Haitien, the old center of government under French colonial administration. It was in the mountains southeast of the town that Christophe built his Sans Souci Palace and—on top of 2,886-foot Bonnet-à-l'Évêque—his tough Citadel of La Ferrière.

On his first voyage Columbus touched land near Môle St. Nicolas and later built a temporary fort near Cap Haitien with timbers from his grounded flagship. Port-de-Paix near by, now with 10,000 people, was the headquarters from which the French took Haiti, after moving in from a previous base on Tortuga Island.

The country's most traveled highway runs from Port-au-Prince to Cap Haitien, through the salt port of Gonaïves, the fourth-largest city, and the cotton mill town of St. Marc (Bulletin No. 2).

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French-Speaking Haiti Unique in Latin American Family

(This is the fifteenth of a series of bulletins, with maps and illustrations, on the republics of Latin America.)

HAITI is in many ways unique among the American nations. It is the only French-speaking republic among its Spanish-, Portuguese-, and English-speaking neighbors. It is the only Negro republic in the Western Hemisphere, and one of few independent Negro states found anywhere. It is the smallest sovereign nation in the New World, and the most densely populated. Only a little larger than the State of Maryland, Haiti has more than 3,000,000 people.

This unusual state occupies a two-family geographic home, sharing the West Indies island of Hispaniola with the Dominican Republic (map, inside cover).

Guards Caribbean Gateway

About 100 miles east of the important U. S. base at Guantánamo, on Cuba's southeast coast, Haiti helps guard the much-traveled Windward Passage, a key gateway to the Caribbean and to the Panama Canal.

In normal times this country was on the route of ten steamship lines. Pan American Airways clippers still make frequent stops there. Haiti declared war on Japan December 8, 1941; four days later on Germany and Italy.

Since December, 1492, when Columbus's *Santa Maria* ran aground off Cap Haitien, Haiti has been the scene of violent yet dramatic and often heroic events.

Under early Spanish rule, the native Indians of Hispaniola were all but wiped out by disease and overwork. Negroes were therefore imported from Africa in large numbers to work the fertile plantations of the colonists. The island became the great slave mart of the West Indies. Hispaniola's western portion, transferred to France in 1697, soon developed into one of France's richest colonies. By 1789 some 30,000 whites in Haiti ruled uneasily over 400,000 blacks and 40,000 mulattoes.

Followed U. S. Lead to Early Independence

Across the Atlantic to this little French possession in the late 18th century came echoes of the French Revolution which turned into Haitian cries for liberty, equality, fraternity. To put down the revolution led by the Haitian general Toussaint L'Ouverture, Napoleon sent his brother-in-law, General LeClerc, with an army of 30,000. L'Ouverture was captured, but the struggle for independence, in which tropical fevers aided the Haitians, was finally won. In 1804 Haiti joined the United States as the second American nation to break its ties with Europe.

In the turbulent years that followed, new rulers wrote spectacular chapters in the island's history. Like an Arabian Nights' tale was the reign of the fabulous self-styled king, Christophe. A ruthless but efficient despot, he eventually ended his own career, according to tradition, by a golden bullet.

In spite of its dense population, modern Haiti is predominantly rural in character. Its capital, Port-au-Prince—a city of gleaming white buildings against a purple mountain background—has about 115,000 inhabitants.

The majority of Haitians are small farmers, tilling their fertile soil in the shadow of great mountain chains that rise in places nearly 9,000 feet and cover some four-fifths of the land. Using simple, often primitive implements and methods, they raise such subsistence crops as corn, beans, rice, sugar cane, the

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altered the region's predominantly agricultural character. Now cotton and silk textile mills operate in Tashkent as well as in five or six other cities. Tashkent also produces agricultural machinery and fertilizer.

The Vale of Fergana, across Central Asia's mountain wall from India's Kashmir, is one of the most densely populated areas of all Russia, and also one of the most productive. Well engineered irrigation makes possible seven crops a year. Cotton fields, vineyards, orchards, rice patches, and mulberry trees cover the lower slopes on each side of the valley up to the wheat belt. Unirrigated, the wheat grows high enough on the mountains to get its fill of moisture.

The riches of these oasis valleys—their delicious melons, their fragrant apricot orchards, their vineyards of tender green grapes—have repeatedly lured the attack of desert nomads. The last of their nomadic conquerors were the Uzbeks, a sturdy desert tribe that swept down from the north.

Devout Moslems, the Uzbeks once permitted child marriage and the purchase of wives. Uzbek women were forced to wear the heavy black horsehair veil known as the *paranja*. Under the Soviets the Uzbek women have obtained equal rights with men, a situation that would have been unusual under Moslem custom. A special sign of their freedom is the disappearance of the *paranja*.

Uzbekistan now has 33 universities, all established since 1920.

Note: The Uzbek S.S.R. is shown on the National Geographic Society's Map of Asia and Adjacent Areas, issued as a supplement to the *National Geographic Magazine* for December, 1942. A price list of maps may be obtained from the Society's headquarters in Washington, D. C.

Bulletin No. 1, March 29, 1943.

Graham Romeyn Taylor

UZBEK COMEDIANS AND COMMENTATORS REACH THEIR PUBLIC WITHOUT RADIO

While radio is no longer unknown in Uzbekistan, the old-fashioned professional story-teller still can assemble an audience to receive firsthand the amusement or news which Americans get from the loud-speaker. This modern version of the medieval minstrel is performing in one of the principal squares of Bukhara, beside the tree-shaded tank where—before the Soviet regime imposed sanitary regulations—devout Moslems washed in disease-infested holy water. The listening men wear typical Uzbek padded coats of striped or flowered cotton, a few of satin or velvet. Over their stitched skull caps they wear bulging turbans. This old city of southeast Uzbekistan was, before the Revolution, the capital of the dynasty of Emirs of Bukhara, religious potentates who executed whoever displeased them by forcing the victims to jump from the 200-foot Tower of Death. Bukhara is a world center for the karakul fur trade.

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The Earth of the Air Age Portrayed on New Pole-Centered Map

THE world, to the wisest ancients, was a broad shelf of land around the Mediterranean Sea, with wild and unknown stormy waters beyond, which spilled the venturesome off the edges of the earth.

The 16th century dawned on a world still Mediterranean-centered. But Viking ships and Portuguese or Spanish caravels had pushed back the frontiers of the unknown to reveal all of Europe, all of Africa, southern Asia, and the Atlantic shores of a shapeless America.

The 20th century, taking to the air when it was three years old, has cleared up the outlines of all the continents and now is revealing the possibilities of a new Mediterranean—or "Middle-of-the-Earth"—Sea, the Arctic Ocean. To portray this Air Age picture of the globe the National Geographic Society is issuing a Map of the Northern and Southern Hemispheres, with a Pole for the center of each Hemisphere and the Equator for its boundary.

Over-the-Pole Flight Brings Chicago Within 3,900 Miles of Enemy

When ships breasting their slow way through the pack ice were the sole means of transportation, the Arctic Ocean was a treacherous and little-traveled waste, open to navigation for only a few weeks each year. But the airplane unlocked the "Northwest Passage" of polar short cuts which explorers had been seeking.

Blazers of the air trail over the North Pole were the three Russian aviators who flew nonstop from Russia to the United States in June, 1937. If they had gone east from Moscow, it would have been a 9,000-mile trip. But flying north instead, they reached Washington State after a 5,000-mile flight of 62 hours.

The National Geographic Society's new Map of the Northern and Southern Hemispheres dramatizes the fact that polar flight is a short cut between continents. With the North Pole as the center, the Northern Hemisphere is mapped with North America, Asia, Europe, and Greenland spreading from the Pole like petals of a flower. The earth's meridians radiate like wheel spokes; the parallels are concentric circles. Therefore, for a simplified example, the shortest distance between two points on opposite sides of the Pole is a straight line—a meridian drawn to the Pole. East-west travel, along a curving parallel, is accordingly less direct.

Over-the-Pole short cuts can trim the distance between New York City, for example, and Chungking in China from 12,100 air miles of an east-west trip to 7,580 air miles. While shortening the route between the United States and her United Nations allies, polar routes also whittle down the mileage between the United States and her enemies. From a hypothetical base near Narvik, Norway, enemy planes would have to fly only about 3,900 miles to bomb Chicago.

New Names Appear on Fan-Shaped Antarctica

Formerly an ocean voyage from the United States meant that the next stop might be England or France or Japan. But the new polar-projection map is a reminder that North America's next-stop neighbor across the Arctic Ocean is the Soviet Union. About two-thirds of the European coast of this polar Mediterranean belongs to the U.S.S.R.

The map shows four tables of airline distances between principal bases, including such newly prominent spots as the Newfoundland Airport, Petropavlovsk in Kamchatka, and Port Moresby in New Guinea.

Bulletin No. 3, March 29, 1943 (over).

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starchy manioc root from which cassava flour is obtained, and tropical fruits.

Haiti also exports an unusual variety of commercial crops. Of these, coffee is the leading commodity, followed, normally, by bananas, sisal (illustration, below), cotton, sugar, and cacao.

Although the war has brought its usual quota of shipping and trade problems, commercial reports out of Haiti are fairly optimistic, based on recent shipments of coffee and sugar, cotton crop agreements with the United States, and other financial and trade assistance from the big continental neighbor. Particularly welcome have been orders for Haitian coffee from the U. S. War Department. Haitian sisal is proving a valuable substitute for some of the Manila fiber lost with the Orient. Rubber planting in Haiti also is expected to help meet war needs.

A significant indication of increased interest in the U. S. is seen in a recent decree making English a required subject in Haitian schools.

Note: Haiti is shown on the National Geographic Society's Map of Mexico, Central America, and the West Indies.

For additional information, see these articles in the *National Geographic Magazine:* "Haitian Vignettes," October, 1934; and "Skypaths Through Latin America," January, 1931*; and in the GEOGRAPHIC SCHOOL BULLETINS: "Hispaniola Has Border Trouble," November 15, 1937.

Bulletin No. 2, March 29, 1943.

Clifton Adams

HAITI'S SNOWY SISAL FIELDS SUPPLY A DOMINICAN INDUSTRY

The white of drying sisal gives the effect of northern winter to Haiti's tropical fields. The useful agave plant, from which the fiber is obtained, will thrive on rocky ground that supports little other growth. Its tough spiky leaves, from 3 to 5 feet long and 4 or 5 inches wide, resemble the century plant. The leaves are not used until the plant is 5 years old. Cut close to the ground, they are taken to the factory (right) where machines scrape the pulp from the tough yellowish-white fibers. Hung on wooden racks, the fibers dry in the sun before being baled and shipped away to be made into rope, twine, and bags for vegetables and fruit—a Dominican industry for which Haiti supplies quantities of sisal.

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Shoe Styles of the Past Fed Vanity, Snubbed Comfort

IF Americans fear that shoe rations will deny them variety in foot fashions they may look back over history's parade of footwear and decide that variety is not always so desirable after all.

The pursuit of fashion has led shoes into such absurd shapes that laws have been passed to control them.

One such law, during the reign of England's Henry VIII, when broad-toed shoes—almost square—became the fashion, prohibited excessive width. Another law, in force when Edward IV was king, was aimed at curbing the fantastic length of turned-up toes. It provided that "no cordwainer or cobler within the City of London, or Three Miles of the same," should make shoes, galoshes, boots, or clogs more than two inches longer than the normal foot length.

When Rank Was Measured by the Foot

In France, Philip the Fair decreed that shoe toes were to be no longer than an added half-foot for the common people, one foot for the rich middle classes, and two feet for princes and other nobles.

Some of Europe's most bizarre shoe styles were worn during the 11th and 12th centuries by court dandies. Slippers were then made in strange forms, with the toes representing scorpions, serpents, and fish tails.

The peak of Europe's pointed-toe era came toward the end of the 14th century. Men wore shoes with elongated tips that looped up to ankle or knee coverings, and even were attached to the belt by cords, silk straps, or gold and silver chains. Many of the long toes, unattached, were stiffened with a stuffing of wool or flax.

The extravagant shoes of Europe's nobility contrasted strikingly with the simple footwear of the common people, generally of cheap rough leather, rawhide, cloth, felt, or wood (illustration, next page).

Through the centuries, shoe style and its lack, as well as kinds and quality of material, have indicated the wearer's economic or official rank. In ancient Egypt, slaves and the poorer people usually had no shoes at all. Rulers and the well-to-do wore sandals of such materials as plaited papyrus and leather.

Puritans Passed Laws Against Shoes

Actors in Greek tragedies wore thick soles to lend them added dignity of height. Roman magistrates, senators, patricians, and other important personages had official high boots in different colors and designs, as a sort of insignia to distinguish them from one another and lesser folk. The Roman soldier wore heavy hobnailed sandals. Church dignitaries, from the Middle Ages on, wore special shoes of rich materials with lavish decorations, such as gold-embroidered white satin.

Men of fashion frequently outpaced women in extremes of shoe design, bright colors, and expensive trimmings. Their satin, silk, and velvet shoes were often embroidered, or decorated with jewels, gold and silver ornaments, and gold thread. Rosettes of ribbon and of gold and silver lace were set at the instep; high red heels added eye appeal.

Clogs and galoshes—worn outdoors to protect the expensive and delicate house shoes—were also sumptuous, their thick soles intricately carved or inlaid

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Now that a flier can hop an ocean between meals and find his watch five hours slow or fast at his destination, the Society's cartographers include on the new map an inset showing the world's time zones. Another flight-minded inset summarizes the varied terrain of the continents, so that an aviator may know whether an emergency landing would bring him down in desert, tundra, forest, or farm land.

The Southern Hemisphere on the new map shows the southern tips of Africa, South America, and Australia pointing toward glacier-coated Antarctica. Once a formless blob of white, the South Polar continent appears as a fan-shaped land mass, bristling with place names some of which have not appeared before on any map. Among the newly named geographic features are Franklin Roosevelt Sea, Mt. Ruth Siple, Thurston Peninsula, Wrigley Gulf, and Walgreen Coast. What was formerly considered one island, Franklin Roosevelt Island, is now shown as four, and the name is made plural to match. These are the only islands yet discovered in the Shelf Ice stretching north from the continent's barrier mountains, which include the Queen Maud Range and the Gilbert Grosvenor Range. The latter, considered the southernmost mountain chain in the world, bears the name of the president of the National Geographic Society.

The new map shows strikingly that the "Seven Seas" have dwindled to six—North Atlantic, North Pacific, Arctic, and Indian Oceans in the Northern Hemisphere; South Atlantic and South Pacific in the Southern. The obsolete name, Antarctic Ocean, has been missing from maps for twenty years.

Bulletin No. 3, March 29, 1943.

Sir Hubert Wilkins

SUMMER CRACKS THE NORTH POLE'S ICE ARMOR IN JIGSAW PUZZLE PATTERNS

Even in summer the inhospitable Arctic Ocean offers no summer-resort stops to short-cut fliers. The pack ice (frozen sea water, as differentiated from icebergs, or chunks of frozen rivers) affords no guiding landmarks, since it drifts with the wind. Its surface in August and September is pockmarked with pools of melted snow and summer rain, streaked with rain gutters that melt into cracks. The water is likely to be full of submerged ice so that either wheel or pontoon landing-geared planes would find emergency landing dangerous. The air above is haunted with the cloud-borne dangers of icing and restricted visibility. But above the clouds, in the relatively warmer air of the sub-stratosphere, the Arctic Ocean route offers airlines a strategic short cut across the Northern Hemisphere.

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Geo-Graphic Brevities

BISMARCK SEA BATTLE FOUGHT IN PACIFIC AREA OF GERMAN AMBITIONS

The Bismarck Sea, where Allied air power in a running battle destroyed a mighty Japanese armada, is an egg-shaped area marked off from the Pacific by New Guinea on the south and west, on the north and east by the larger islands of the Bismarck Archipelago—New Britain, New Ireland, and Manus.

Bismarck Sea is somewhat larger than Lakes Superior and Michigan together. It had already seen considerable air action in this war. The Japanese advanced base at Rabaul—one of the most frequently bombed points in the Southwest Pacific—stands on New Britain's Bismarck Sea shore.

On the hundred or more islands in the archipelago fringing the sea, fewer than 150,000 natives have been counted. Much of the sea traffic in this area, however, is directed toward New Guinea (illustration, next page).

How did the name of an empire-building German statesman find its way into this area of British, Australian, and now Japanese influence?

Germany's Chancellor Bismarck in 1884 seized the sea and the surrounding islands for Germany while ownership negotiations were pending with Britain. Previously, the islands had been known as the New Britain group. In 1885 the Germans rechristened New Britain and New Ireland as Neu Pommern and Neu Mecklenburg, and gave the chancellor's name to the group. After World War I the islands were mandated to Australia and all English names revived except the group title.

* * * * *

CHINA GAINS CHAMPIONS AS LISUS ARM AGAINST JAPS

Lisu tribesmen of southwest China have gone to war against Japan, 100,000 strong. Their traditional weapons, the poisoned arrows, are being replaced with rifles. Their homeland, near bases where American fliers are fighting, is the mountainous border between Japanese-held Burma and China's Yunnan Province. Thus the Lisu tribe is in position to impede Japanese advance along the Burma Road.

Lisuland is one of the most rugged inhabited regions. It lies in the rough country on the Yangtze's left bank where that giant river carves a great V northwest of Likiang. Mountains rising 24,000 feet are threaded by rivers sweeping through gorges two miles deep. Four of the mightiest rivers of Asia—the Yangtze, Mekong, Salween, and Irrawaddy—for a short distance flow within sixty miles of one another, separated by lofty divides.

The Lisus are peaceable by preference, but they like their freedom enough to fight for it. They have fought off invaders or migrated to less desirable locations in order to avoid bowing to stronger tribes. The Chinese once had to fight the Lisus for control of what is now Yunnan Province. In lowland areas Chinese and Lisus have intermarried, but for the most part the Lisu has lived alone and liked it in remote canyons and on mountaintops.

Among their neighbors Lisus are famed for their dancing. They are the official dancers for inter-tribal ceremonies. Men and women together dance to the twanging, waspish music of bamboo jew's-harps. These songs are all versions

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with ivory and precious metals. In the days of super-long toes, such overshoes were more like sled runners or skis than foot coverings.

Shoe styles have ranged from Chinese stiff-soled "rocker" shoes to upturned Turkish slippers and the feather-trimmed moccasins of the Australian bushman.

In colonial America, the Puritans once passed laws to keep shoes plain and inexpensive, especially for persons of little income or position. In a court of Salem, Massachusetts, in 1652, one man "was presented for excess of boots, ribands, gould and silver laces."

Scientific Design of Recent Date

Yet for all the attention given to odd styles, little was done until comparatively recent times to adapt man's shoes scientifically to his needs. It was not until late in the 18th century, for example, that separate lasts were used in England for the right and left foot.

Among walking humanity, no one has more need of shoe comfort and durability than the foot soldier, and his footwear is now especially designed for both. Asked what he thought was the most vital piece of the soldier's equipment, the Duke of Wellington, of Waterloo fame, answered: "First a good serviceable pair of shoes; second, another good pair of shoes; and third, a pair of half soles." The Wellington boot, designed by and named for the general, was long worn in the British army.

Bulletin No. 4, March 29, 1943.

Crété

HARD-PRESSED PEOPLE CAN SLIP INTO WOODEN SHOES FOR HARD WEAR

Used for centuries when leather was too expensive for common folk, the virtue of wooden shoes is that they are cheap and tough, usually outgrown before worn out. The machine age brought cheap leather shoes for popular use even in the Netherlands, Belgium, and France. But wooden footgear remained where the wood offered special protection to farmers working in their moist fields or fishermen in wet boats. The war shortage of leather has again shod much of Europe in wood. With alder wood a favorite material, the splinter-boots are shaped from blocks with a hatchet, then whittled smooth with a knife, and the foot space gouged out with a big chisel. A skilled workman can turn out six pairs a day, made to the customer's measure. In rural France, the hard necessity of the wooden shoe may be varnished over and decorated with patterns (above). Shapes vary from the oxford-type clodhoppers to the open "pump" style (right).

of "There's No Place Like Home." They sing of their misty mountaintop homes, and of dim, dripping forests where they hunt. The tribe is naturally tough and hardy. Division of labor is like that of American Indian tribes: men do the fighting and women do the work.

* * * * *

HENGELO DRAWS FIRE FOR SUPPLYING REICH

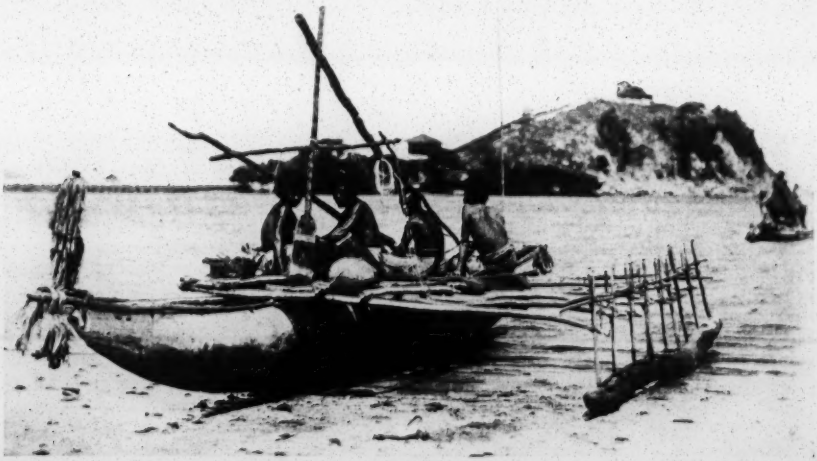
Hengelo, textile center in the northeast Netherlands, raked by British bombers, won its place on the R.A.F.'s target list through suspicion that the quantities of engines and motors it manufactured were for German use.

Ten miles from the German border, in the heart of an industrial region noted for cotton spinning and weaving, Hengelo is a center for all forms of cotton manufacture. It has breweries and dye-works, as well as the suspected plant which in peacetime turned out engines for the State railway company.

Now in the direct path of British planes winging ruin to war plants in the Ruhr district, Hengelo, in peacetime, was of importance to tourists mainly as a transfer point to cities richer in "sights" or accommodations. With a population of about 40,000, it ranked in size with Montclair, New Jersey, or Norwalk, Connecticut. Before the war its citizens boasted that the local engineering works were growing so fast they might eclipse the town's cotton mills.

Hengelo is in Overyssel, a province whose 1,302 square miles comprise about a tenth the total area of the Netherlands, very little larger than Rhode Island.

Bulletin No. 5, March 29, 1943.



E. W. Brandes

AN OUTRIGGER "CRUTCH" HELPS PAPUAN CANOES CONQUER THE BISMARCK SEA

The southwestern boundary of the Bismarck Sea is the coast of New Guinea, where Papuan natives boldly launch their seagoing canoes. Though Papuans are mainly of Melanesian stock, the coast dwellers have also a Polynesian strain in their ancestry. The Polynesian influence appears in such details as their knowledge of how to build an outrigger "crutch" to stabilize their canoes and prevent tipping over in rough water. These slender craft are made from solid logs by the slow process of carving the boat's smooth exterior shape, then laboriously hollowing out the interior, chip by chip. Without metal for tools or nails—unless within reach of white settlements—the Papuan makes his canoe with stone implements, and the outrigger is lashed to the crossbeams with fiber ropes. From these lightly skimming boats he can spear fish or shoot them with bow and arrow, and scoop up crabs or turtles.

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